## PATENT ABSTRACTS OF JAPAN

spring used place

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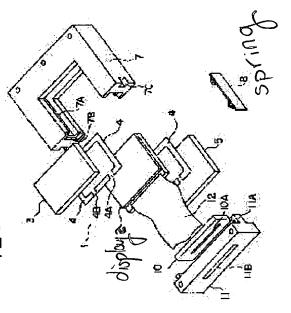
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## (54) SEALED LIQUID CRYSTAL DISPLAY DEVICE

## (57)Abstract:

PROBLEM TO BE SOLVED: To sharply view an image projected on a liquid crystal display panel by preventing dust from sticking on the liquid crystal display panel. SOLUTION: A front side glass 3 and a rear side glass 5 are stuck respectively to the front and rear surfaces of the liquid crystal display panel 2 by interposing frameshaped both-sided adhesive tapes 4 in between. Then oil is injected into the spaces between the liquid crystal display panel and the front side glass, and between the liquid crystal panel and the rear side glass for sealing. Then a leaf spring 8 for positioning the liquid crystal panel, etc., is inserted into one side of a groove 7A formed on three surfaces inside a U-shaped external frame 7 and the groove is filled entirely with an adhesive. Further, the liquid crystal display panel, etc., is inserted into the groove. To position the liquid crystal display panel, etc., and prevent a leak of the adhesive, sponge 10 is mounted in a couple of recessed places 7B formed on both sides of the entrance of the external frame, a couple of hooks 11A formed on



both end sides of a lid 11 are engaged with a couple of engagement parts 7C formed on both the outside surfaces of the external frame, and the adhesive is hardened.

## LEGAL STATUS

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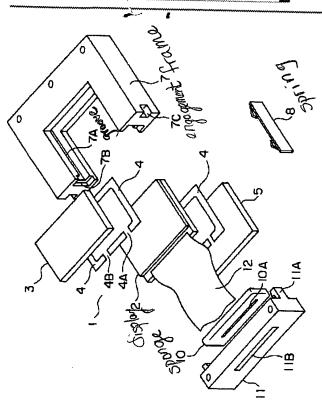
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